

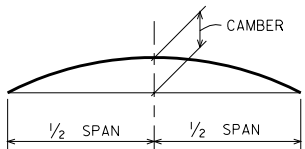
ISOMETRIC VIEW

\*NOTE: CONTRACTOR SHALL VERIFY LOCATION OF HANDHOLES, WHEN THEY ARE REQUIRED. PRIOR TO FABRICATION OF UPRIGHTS. HANDHOLES TO BE LOCATED 180° FROM TRAVELED WAY AS SHOWN.

SPAN SIGN STRUCTURE NOTES

- 1) SIGN STRUCTURE MATERIALS SHALL BE AS FOLLOWS:  
UPRIGHT & CHORDS (STEEL PIPE) -> API-5L-X42 (289 MPa YIELD)  
WEBS AND SPLICES (STEEL ANGLES) -> ASTM A709M GRADE 250  
STEEL PLATES -> ASTM A709M GRADE 250  
WELD METAL -> E480XX  
BOLTS (EXCEPT ANCHOR BOLTS) -> ASTM A325M
- 2) STEEL ANCHOR BOLTS SHALL BE AASHTO 314 GRADE 380. NUTS FOR ANCHOR BOLTS SHALL BE ASTM A563M GRADE A HEAVY HEX.
- 3) ALL STEEL ITEMS SHALL BE GALVANIZED AS FOLLOWS:  
STRUCTURAL SHAPES AND PLATES -> ASTM A 123  
ALL NUTS, BOLTS AND WASHERS -> ASTM A 153 CLASS C OR D DEPENDING ON SIZE
- 4) ALL HIGH STRENGTH BOLTS, NUTS, AND WASHERS, EXCEPT ANCHOR BOLTS AND SIGN CONNECTION U-BOLTS SHALL MEET THE REQUIREMENTS OF STANDARD SPEC. 506.2.5 AND BE INSTALLED IN ACCORDANCE WITH STANDARD SPEC. 506.3.12. ANCHOR BOLTS SHALL HAVE DOUBLE NUTS.
- 5) CONCRETE SHALL BE GRADE A WITH A MINIMUM 28-DAY COMPRESSIVE STRENGTH (F'c) OF 24 MPa FOR ALL ENVIRONMENTAL CLASSIFICATIONS.
- 6) REINFORCING STEEL SHALL BE ASTM A615M GRADE 420.
- 7) ALTERNATE DESIGNS FOR THIS STRUCTURE ARE NOT ALLOWED. DIFFERENT SIZE AND STRENGTH OF MEMBERS MAY BE SUBSTITUTED WITH THE APPROVAL OF THE OFFICE OF DESIGN.
- 8) DO NOT GROUT THE SPACE BETWEEN TOP OF FOOTING AND BOTTOM OF BASE PLATE.
- 9) SHOP DRAWINGS FOR THIS STRUCTURE ARE REQUIRED AND FABRICATION SHALL NOT BEGIN UNTIL THESE SHOP DRAWINGS ARE APPROVED.
- 10) THE STRUCTURE MUST BE ASSEMBLED AFTER GALVANIZING AND PRIOR TO SHIPMENT TO THE SITE TO ASSURE FIT UP. IT MAY BE DISASSEMBLED IN SECTIONS FOR SHIPPING. ALL HIGH STRENGTH BOLTED CONNECTIONS (WEB TO CHORD GUSSET) BETWEEN CHORD SPLICE POINTS SHALL BE FULLY TIGHTENED IN THE SHOP. THE TOWER/CHORD, CHORD SPLICE, AND ACROSS THE SPLICE WEB TO CHORD GUSSET CONNECTIONS SHALL BE FULLY TIGHTENED IN FIELD.

- 11) THE DESIGN WIND SPEED IS 137 km/h WITH A 30 PERCENT GUST FACTOR.
- 12) PROVIDE A CAMBER WITH THE MAXIMUM UPWARD DEFLECTION AS CALLED FOR ON THE CAMBER DIAGRAM. INDICATE ON THE SHOP DRAWINGS THE METHOD TO BE USED TO PROVIDE THE REQUIRED CAMBER.
- 13) SIGN PANELS ATTACHED TO THE TRUSS SHALL BE CENTERED (IN ELEVATION) ON THE STRUCTURE. SIGN PANELS SHALL BE ALUMINUM.
- 14) EXCEPT FOR ANCHOR BOLTS, ALL BOLT HOLE DIAMETERS SHALL BE EQUAL TO THE BOLT DIAMETER PLUS 2 mm. PRIOR TO GALVANIZING, HOLE DIAMETERS FOR ANCHOR BOLTS SHALL NOT EXCEED THE BOLT DIAMETER PLUS 13 mm.
- 15) CONTRACTOR SHALL ATTACH SIGN PANELS TO THE TRUSS CHORDS AS SHOWN ON "TYPICAL SIGN CONNECTION", STANDARD 39.5. SIGN PANELS AND HARDWARE REQUIRED TO ATTACH SIGNS TO TRUSS CHORDS, INCLUDING ALL W130 X 5.5 ALUMINUM SIGN SUPPORT BRACKETS, U-BOLTS, AND POST CLIP HARDWARE, WILL BE SUPPLIED AND DELIVERED TO SITE BY OTHERS.
- 16) ANCHOR BOLTS SHALL BE PROVIDED WITH TEMPLATES TOP AND BOTTOM TO MAINTAIN VERTICAL ALIGNMENT AND SPACING DURING CONCRETE PLACEMENT. TEMPLATES MAY NOT BE WELDED TO THE ANCHOR BOLTS.
- 17) SIGNS OR BLANKS SHALL BE INSTALLED ON TRUSS AT TIME OF ERECTION. BLANKS SHALL BE 1/4 THE LENGTH OF BRIDGE, 610 mm DEEPER THAN C TO C OF CHORDS & SHALL BE CENTERED ON THE BRIDGE.
- 18) SHOP WELDED CONNECTIONS MAY BE USED IN LIEU OF BOLTED CONNECTIONS IN TRUSS IF UNIT CAN BE GALVANIZED IN ONE PIECE.
- 19) ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.



CAMBER DIAGRAM

3-CHORD STEEL SIGN BRIDGE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DEVELOPMENT SECTION	
APPROVED: _____	DATE: 4/99